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ABSTRACT

Neurolinguistic Programming (NLP) is a currently popular therapeutic modality in which individuals organize information through three basic sensory systems, one of which is the Primary Representational System (PRS). This study was designed to investigate gender differences in PRS according to the predicate preference method. It was expected that males would be identified as primarily visual and that females would be identified as primarily kinesthetic. An ad hoc purpose was to investigate scoring procedures used in the predicate preference method. College students (N=76) were asked to describe three settings or events. Data were scored initially in a deliberate manner using literal meanings of predicates. For the ad hoc investigation of NLP scoring procedures, data were scored a second time according to the subjective evaluation of predicates. While results of multivariate analyses of variance with gender as the independent variable and three predicate scores as dependent variables were uninterpretable, PRS frequency tallies showed that when data were scored according to deliberate criteria, virtually all subjects were kinesthetic; when scored according to subjective impression, most subjects were visual. Results suggest that standard guidelines should be developed for scoring predicates and that NLP should be used cautiously until further research has been conducted. (Author/NB)

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Neurolinguistic Programming (NLP) is a currently popular therapeutic modality in which individuals organize information through three basic sensory systems, one of which is the Primary Representational System (PRS). The present study was designed to investigate gender differences in PRS acording to the predicate preference method. It was expected that males would be identified as primarily visual and that females would be identified as primarily kinesthetic. An ad hoc purpose was to investigate scoring procedures utilized in the predicate preference method. Seventy-six subjects were asked to describe three settings or events. Data were scored intially in a deliberate manner using literal meanings of predicates. For the ad hoc investigation of NLP scoring procedures, data were scored a second time according to subjective evaluation of predicates. While results of multivariate analyses of variance with gender as the independent variable and three predicate scores as dependent variables were uninterpretable, PRS frequency tallies showed that when data were scored according to deliberate criteria, virtually all subjects were kinesthetic; when scored according to subjective impression, most subjects were visual. Results suggest that standard guidelines should be developed for scoring predicates and that NLP should be used cautiously until further research has been conducted.

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Introduction and Review of the Literature

Neurolinguistic Programming (NLP) is an increasingly popular therapeutic modality developed in 1975 by Richard Bandler and John Grinder. It originated from their systematic observations of such well-known therapists as Virginia Satir, Fritz Perls, and Milton Erickson. Bandler and Grinder posit that subtle cues exist in communication which generally are unnoticed by the casual observer, but may be utilized by the trained observer to facilitate communication by increasing trust and rapport. Based on these observations, they formulated a model which is currently being taught in workshops across the United States (Goleman, 1979).

According to NPL, individuals organize information from their world through three basic sensory systems: sight, sound, and touch. In each individual, one of these is purported to predominate and becomes the preferred system which is called the Primary Representational System (PRS). This is not to say it is used exclusively, but rather, that it is used most frequently. The predominantly visual person will "see what you mean," the auditory individual will "hear you," while the kinesthetic person will "have a grasp of the situation."

Bandler and Grinder (1975) propose two methods for determining PRS: the eye movement technique and predicate preference. Reflexive eye movements during conversation can be observed and identified as visual, auditory, or kinesthetic. According to NLP, for a normally

organized, right-handed individual, visual movements during conversation are described as eyes up and to the left or right or eyes straight ahead, defocused, with pupils dilated. Auditory eye movements are indicated by glances directly to the left or right and by downward movements to the left. Kinesthetic eye movements are downward and to the right. The pattern of the most frequently noted eye position is considered the PRS. Predicates are words used in speech which also reflect PRS. Bandler and Grinder define predicates as verbs, adverbs, and adjectives; any of which may be visual, auditory, or kinesthetic. Again, the system most frequently represented by the usage of predicates may be assumed to be the PRS.

Why is it important to establish PRS? Central to NLP is the assumption that if one can correctly identify PRS, one can respond in that system using its predicates; and that, as a result, trust and rapport will be greatly increased. The implications are obviously broad. Workshops have proliferated so that there is NLP for counselors, NLP for lawyers, and NLP for salesmen even though research on the model has been inconclusive. In addition, a number of specific aspects of NLP appear to have been neglected; one of which, gender differences in NLP using the predicate preference method to determine PRS, was investigated in the present study.

Interest in NLP is high, yet after twelve years relatively little research has been conducted. Results of research on NLP have been inconsistent but mostly disappointing. In an early study, Owens (1977) examined the relationship between eye movement, predicate preference, and a third measure, self-report. He found significant agreement only between eye-movement and predicate preference. Subjects were both male and female. Gumm, Walker, and

Day (1982) conducted a similar experiment except that all subjects were female. No agreement was found between any of the three variables.

Thomason et al. (1980) examined the eye movement hypothesis of NLP. Subjects, again, mostly female, were presented with a stimulus question and were expected to make eye movements based on the NLP model. They did not. Beck and Beck (1984) refuted results of this study because they felt it was based on a misunderstanding of the NLP model. The Becks claimed that, according to NLP, eye movements are a reflection of an internal process, rather then a response to stimuli. A visual person, for example, is expected to habitually use the visual modality regardless of stimulus. In other studies of eye movements, Dorn, Atwater, Jereb, and Russell (1983), using only female subjects, replicated the eye movement portion of the study conducted by Falzett (1981). Further, they sought to determine stability of PRS over time by using a test-retest procedure with a 7-day interim. Reliability of the eye movement hypothesis was not confirmed.

Predicate preference, to date, has been the subject of more research than than has the eye movement technique of NLP. Birholtz (1981) determined that people do, in fact, tend to use more predicates from one representational system that another. She also found that it is appropriate to use the visual, auditory, and kinesthetic modalities while excluding olfactory and gustatory sensory modalities.

Dorn (1983a) examined three techniques: predicate preference, self-report, and an interview. To determine predicate preference a procedure suggested by Bandler and Grinder (1975) was adopted. The

subject must describe in detail a mental image of an ocean or lakeside, an automobile accident, or other imaginable experience. The predicates then are tallied. Expected percentages of group membership were formulated from data reported in previously conducted studies (Dorn, Brunson, & Atwater, 1983; Falzett, 1981; Thomason, Arbuckle, & Cady., 1980). The relationships between the three techniques studied were weak, and observed frequencies did not match expected frequencies. It must be pointed out, however, that the expected frequencies were determined on data from mostly female subjects while observed frequencies were based on data obtained from male and female subjects.

Studies of predicate preference and mental imagery obtained conflicting results. Graunke (1984) found a systematic relationship between imaging and predicate preference among female subjects, most of whom used kinesthetic predicates; while Johannsen (1982) found that mental imagery did not validate predicates as indicators of representational systems. He used twice as many female as male subjects and classified most as kinesthetic on the basis of predicate preference. Using a quite different approach with subjects of both sexes, Fromme and Daniell (1984) determined PRS by demonstration of skill on a task rather than by predicate preference. They also examined ability to communicate imagery. The experiment failed to support the NLP model.

Falzett (1981) found that matching predicates to a client's PRS enhanced the counselor/client relationship. Interestingly, he chose the eye movement technique over predicate preference because he was able to achieve almost perfect distribution of subjects into the three categories using the eye movement technique, while most

subjects were identified as kinesthetic when the predicate method was used. In another study, Dorn (1983b) obtained high inter-rater agreement of subjects' PRS, but failed to support the counselor/client matched hypothesis of NLP. Sex of subject was not reported and no subjects were identified as auditory. Subjects of Dowd and Pety (1982) listened to audio tapes of matched versus unmatched PRS in counselor/client dialogues and then evaluated the effectiveness of the interviews. The results were not significant except for a post-interview willingness of the subjects to see the counselors who matched predicates with their clients. It must be noted, however, that the PRS of subjects who listened to the tape was not considered. Sixty percent of the subjects were female.

As may be seen from this review of the literature, one of the limitations of research is that, when gender was reported, the majority of subjects have been female. Some researchers have ignored subject gender entirely, which may account for their subjects being more often represented in one particular sensory modality, usually kinesthetic; while another modality may not be represented at all. Dorn, Brunson, and Atwater (1983) stress that further research into the possible differences attributable to gender is warranted.

The present study was designed to investigate gender differences in PRS according to the predicate preference method. Based on research conducted by Dorn (1983b), Graunke (1984), Gumm et al (1982), and Johannsen (1982), it was expected that more females than males would be identified as primarily kinesthetic; that fewer subjects, regardless of sex, would be identified as primarily auditory; and that more males that females would be identified as

primarily visual. A second ad hoc focus of this study was to investigate scoring procedures utilized when the predicate preference method is used to determine the PRS.

METHOD

Subjects

Subjects were 39 female and 37 male volunteers enrolled in introductory psychology courses at Northeast Louisiana University, Monroe, Louisiana. Subjects were assigned to one of two groups according to gender.

Procedure

Participants were asked to describe in detail each of three settings or events according to the method developed by Dorn (1983a). The first of these was an ocean or lakeside; the second was an automobile accident; and the third was a mountain setting. The order of presentation of the settings or events was varied. Subject's responses were tape-recorded and later transcribed to facilitate scoring according to the predicate preference method. Data were scored twice: once in a very delibrate manner using literal meaning of predicate words and secondly according to initial impression and subjective evaluation of predicates.

Statistics

Data were analyzed by using multivariate analysis of variance (MANOVA). The independent variable was subject gender. Dependent variables were visual, auditory, and kinesthetic predicate scores.

Results and Discussion

It was expected that there would be a significant difference between male and female subjects in PRS according to the NLP model and that more males than females would be identified as primarily visual and more females than males would be identified as primarily kinesthetic. When data were scored according to deliberate criteria, results of the multivariate test of significance failed to reach statistical significance and, therefore, results of this analysis were uninterpretable, Pillais = .73, F (3,72) = 64.06, p > .05. However, it should be noted that all subjects were identified as kinesthetic except for two, both of whom were identified as visual. (See Table 1.)

Dorn, Brunson, and Atwater (1983) cite the lack of reliable methods for determining the PRS as a major drawback of NLP. Problems with the predicate preference or verbal report method for determining the PRS have been reported by Owens (1977), Falzett (1982), and Gumm et al. (1982). It would seem, based on results of the present study and of other studies in which inconclusive findings were obtained, that the lack of guidelines in the scoring of predicates constitutes a weakness in the research of predicate preference to date, and represents a basic flaw in NLP itself. Descriptions of standards used in the scoring of predicates were omitted from virtually every study in which predicate preference was used. It cannot be assumed, then, that the same standards were universally employed. Decisions on the scoring of predicates are largely left to the judgement of the individual researcher. Since

Table 1: Frequencies by Subject Gender for Predicate Scores

Predicate Variable	Subject Gender: Females	Subject Gender: Males
Predicates Scored According to Deliberate Criteria, n =76*		
Visual	1	1
Auditory	0	0
Kinesthetic	35	36
Predicates Scored According to Subjective Impression, n =54**		
Visual	21	20
Auditory	2	2
Kinesthetic	2	3

*Three female subjects were omitted from the analysis because primary modality could not be determined.

**Only data for the first 54 subjects was rescored. Of these, scores of 4 subjects were omitted because predominant modality could be not determined.

several possible interpretations for scoring exist, differences between them may introduce bias towards one sensory modality or another.

In order to examine predicate scoring more closely, transcripts of the first 54 subjects were rescored using a different set of criteria from those applied in the initial analysis of data. Data transcripts were scored initially in a very deliberate manner with careful consideration of each predicate. This approach was abandoned in the subsequent scoring in order to more closely match the method proposed by Bandler and Grinder (1975), in which predicates were to be judged during speech, based on first impressions. When scored deliberately, literal interpretations were made of predicates; when data were re-evaluated, predicates were scored based on the subjective experience described by the subject. Finally, when scored deliberately, all possible predicates were scored. When scored subjectively, some predicates were omitted if they did not appear to contribute to the overall connotation of the described experience.

Once again, results of MANOVA with subject gender as the independent variable and three sensory modality scores as dependent variables were uninterpretable, Pillais = .07, F (3, 31) = 1.36, $p > .05$. However, predominant sensory modality scores of individual subjects varied dramatically following rescoring. As may be seen in Table 1, after rescoring, 41 subjects were identified as primarily visual, 4 were identified as primarily auditory, and 5 were identified as primarily kinesthetic.

The discrepant interpretations of predicates which were encountered on virtually every page of the transcripts give rise to

questions concerning the appropriateness of the use of predicates for determining the PRS of individuals. One problem was that many subjects relating an experience in one sensory modality often referred to a second modality in the same sentence. For example, many subjects said that they saw people walking on the beach. The subjective experience, therefore, was visual, but walking is a kinesthetic word. In the original scoring of the data, it was decided that the word saw would be scored as visual and walking would be scored as kinesthetic. In the rescoring of the data, only the word saw was scored because the experience of the subject was considered visual. Another question which was frequently encountered was whether or not every predicate should be scored literally. An example of this is the use of such phrases as "I opened and closed them...". This phrase apparently refers to a visual experience, but, technically, the only words to be scored are the kinesthetic words opened and closed . In the first scoring, literal interpretations were made of such words and, as a consequence, many more kinesthetic predicates were scored for all subjects. When data were rescored such words were scored according to the subjective experience being described. In this particular example, for instance, opened and closed were scored as visual. Another difference in scoring guidelines used was the rate of speed and the length of time spent considering the scoring of each predicate. The original scoring was implemented in a slow, thoughtful, deliberate manner. This approach was abandoned in the second scoring in order to more closely resemble the method originally proposed for determining the PRS of an individual based on NLP. The judgements of predicates are actually intended to be

made quickly, based on initial impression, in a natural, i.e., an oral setting. Problems of observer/rater bias and inconsistencies in judgements made by individual raters seem unavoidable unless a number of observers are used and inter-rater reliability is established. Applying such procedures is obviously impossible in non-research type settings such as counseling and business in which NLP primarily is being employed.

NLP currently is being used in a variety of such applied settings even though lack of reliable means of determining PRS appears to be a major weakness of the therapeutic modality. Results of this study suggest that before predicate preference can be ruled out as a reliable means of determining PRS, standard guidelines should be developed for scoring predicates, and users should be carefully trained according to these established criteria. Caution is advised in its use until such further research has been conducted.

REFERENCES

Bandler, R. , & Grinder, J. (1975). The structure of magic II. Palo Alto, CA: Science and Behavioral Books.

Beck, C. E. , & Beck, E. A. (1984). Test of the eye-movement hypothesis of neurolinguistic programming: A rebuttal of conclusions. Preceptual and Motor Skills, 58, 175-176.

Birholtz, L. S. (1981). Neurolinguistic programming: Testing some basic assumptions. Dissertation Abstracts International, 48, 2042 5B.

Dorn, F. J. (1983a). Assessing primary representational system (PRS) preference for neurolinguistic programming (NLP) using three methods. AMHCA Journal, 5, 149-156.

Dorn, F. J. (1983b). The effects of counselor-client predicate use similarity on counselor attrativeness. AMHCA Journal, 5, 23-30.

Dorn, F. J. , Atwater, M. , Jereb, R. , & Russell, R. (1983). Determining the reliability of the NLP eye movement procedure. AMHCA Journal, 5, 105-110.

Dorn, F. J. , Brunson, B. I. , Atwater, M. (1983). Assessment of primary representational systems with neurolinguistic programming: Examination of the preliminary literature. AMHCA Journal, 5, 161-168.

Dowd, E. T. , & Pety, J. (1982). The effect of counselor predicate matching on perceived social influence and client satisfaction. Journal of Counseling Psychology, 29, 206-209.

Falzett, W. C. (1981). Matched versus unmatched primary representational systems and their relationship to perceived trustworthiness in a counseling analogue. Journal of Counseling Psychology, 28, 305-308.

Fromme, D. K. , & Daniell, J. (1984). Neurolinguistic programming examined: Imagery, sensory mode, and communication. Journal of Counseling Psychology, 31, 387-390.

Goleman, D. (1979, July). People who read people. Psychology Today, pp. 66-78.

Graunke, B. R. (1984). An evaluation of neurolinguistic programming: The impact of varied imaging tasks upon sensory predicates. Dissertation Abstracts International, 45, 1913 6B.

Gumm, W. B. , Walker, M. K. , & Day, H. D. (1982). Neurolinguistic programming: Method or myth? Journal of Counseling Psychology, 29, 327-330.

Johannsen, C. A. (1982). Predicates, mental imagery in discrete sense modes, & levels of stress: The neurolinguistic programming typologies. Dissertations Abstracts International, 43, 2709 8B.

Owens, L. F. (1977). An investigation of eye movements and representational systems. Unpublished doctoral dissertation, Ball State University, Muncie, IN.

Thomason, T. C. , Arbuckle, T. , & Cady, D. (1980). Test of the eye-movement hypothesis of neurolinguistic programming. Preceptual and Motor Skills, 51, 230.